

United States Patent: 6,753,164

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United States Patent
Ni, et al.

6,753,164
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Nucleic acids encoding human serpin polypeptide HMCIS41

Abstract

The present invention relates to novel human Serpin polypeptides and isolated nucleic acids containing the coding regions of the genes encoding such polypeptides. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human Serpin polypeptides. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating disorders related to these novel human Serpin polypeptides.

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Parent Case Text

This application is a continuation-in-part of, and claims benefit under 35 U.S.C. .sectn. 120 of copending PCT International Application Ser. No. PCT/US00/05082, filed Feb. 29, 2000 (in English), which is hereby incorporated by reference in its entirety, and PCT/US01/02484, filed Jan. 26, 2001 (in English), which is hereby incorporated by reference in its entirety, which claims benefit under 35 U.S.C. .sectn. 119(e) based on U.S. Provisional Application No. 60/178,769, filed Jan. 28, 2000, which is hereby incorporated by reference in its entirety.

Claims

What is claimed is:

1. An isolated **nucleic acid** molecule comprising a polynucleotide selected from the group consisting of:
 - (a) a polynucleotide encoding amino acid residues 1 to 215 of SEQ ID NO:7; and
 - (b) a polynucleotide comprising nucleotides 1 to 706 of SEQ ID NO:4.
2. The isolated **nucleic acid** molecule of claim 1, wherein said polynucleotide is (a).
3. The isolated **nucleic acid** molecule of claim 1, wherein said polynucleotide is (b).
4. The isolated **nucleic acid** molecule of claim 1, wherein the polynucleotide further comprises a heterologous polynucleotide.
5. The isolated **nucleic acid** molecule of claim 4 wherein said heterologous polynucleotide encodes a heterologous polypeptide.

6. A vector comprising the isolated *nucleic acid* molecule of claim 1.
7. The vector of claim 6 wherein the *nucleic acid* molecule is operably associated with a heterologous regulatory sequence that controls gene expression.
8. A recombinant host cell comprising the isolated *nucleic acid* molecule of claim 1.
9. The recombinant host cell of claim 8 wherein the *nucleic acid* molecule is operably associated with a heterologous regulatory sequence that controls gene expression.
10. A method for producing a polypeptide, comprising:
 - (a) culturing the recombinant host cell of claim under conditions suitable to produce the polypeptide encoded by said polynucleotide, and
 - (b) recovering the polypeptide from the cell culture.
11. An isolated *nucleic acid* molecule comprising a polynucleotide selected from the group consisting of:
 - (a) a polynucleotide encoding the amino acid sequence of the full-length polypeptide encoded by the cDNA clone contained in plasmid HMCIS41 in ATCC Deposit No. 203843; and
 - (b) a polynucleotide comprising the cDNA clone contained in plasmid HMCIS41 in ATCC Deposit No. 203843.
12. The isolated *nucleic acid* molecule of claim 11, wherein said polynucleotide is (a).
13. The isolated *nucleic acid* molecule of claim 11, wherein said polynucleotide is (b).
14. The isolated *nucleic acid* molecule of claim 11 wherein the polynucleotide further comprises a heterologous polynucleotide.
15. The isolated *nucleic acid* molecule of claim 14, wherein said heterologous polynucleotide encodes a heterologous polypeptide.
16. A vector comprising the isolated *nucleic acid* molecule of claim 11.
17. The vector of claim 16 wherein the *nucleic acid* molecule is operably associated with a heterologous regulatory sequence that controls gene expression.
18. A recombinant host cell comprising the isolated *nucleic acid* molecule of claim 11.
19. The recombinant host cell of claim 18, wherein the *nucleic acid* molecule is operably associated with a heterologous regulatory sequence that controls gene expression.
20. A method for producing a polypeptide, comprising:
 - (a) culturing the recombinant host cell of claim 18 under conditions suitable to produce the polypeptide encoded by said polynucleotide; and